The DNA of the present invention encodes the above-mentioned proteins. Among these, the preferred is a DNA wherein a base sequence encoding for Arg at the fourth position from the N-terminal amino acid is CGT or CGC, and a base sequence encoding for Val at the fifth position from the N-terminal amino acid is GTT or GTA. Furthermore, the preferred is a DNA wherein a base sequence encoding for the N-terminal amino acid to fifth amino acid, Seq-Asp-Asp-Arg-Val (SEQ ID NO: 60), has the following sequence

Ser: TCT or TCC

Asp: GAC or GAT

Asp: GAC or GAT

Arg: CGT or CGC

Val: GTT or GTA

In this case, the preferred is a DNA wherein a base sequence encoding for amino acid sequence of from the N-terminal amino acid to fifth amino acid, Ser-Asp-Arg-Val (SEQ ID NO: 60), has the sequence TCT-GAC-GAT-CGT-GTT (SEQ ID NO: 61).

Page 15, line 22 through page 16, line 2, replace the text in its entirety with the following:

In fact, a sequence of Met-Ser-Asp-Asp-Arg- . . . . . (SEQ ID NO: 62) was designed by deleting N-terminal aspartic acid residue from transglutaminase derived from microorganism (MTG), and this was produced in E. coli. As a result, methionine residue was efficiently removed and thereby there was obtained a protein having a sequence of Ser-Asp-Asp-Arg- . . . . (SEQ ID NO:1, residues 2-5). It was confirmed that the specific activity of the thus-obtained protein is not different from that of natural MTG.

Please delete the original Sequence Listing at pages 27-63 without prejudice.